

CONTENTS

VOLUME 1, ISSUE Nos 1 - 4

Issue No. 1, January - March

Editorial	1
Methods and Limitations of Assessing the Hermeticity of Semiconductor Component Encapsulations: R. P. Merrett	3
Activation Energies and the Arrhenius Equation: F. Jensen	13
Effectiveness of Formal Reliability Programmes: P. D. T. O'Connor	19
Graphical Weibull Analysis of Repairable Systems: G. Härtler	23
Quantitative Demonstration and Cost Considerations of a Software Fault Removal Methodology: M. Lipow	27
Exploring Reliability Data: A. Bendell and L. A. Walls	37
Weibull Probability Paper used on Highly Stressed Bimodal Components: A. Drapella	53
NEWS ITEMS	57
INTERNATIONAL CALENDAR OF FORTHCOMING EVENTS	58
Call for Papers and Advance Information	60
BOOK REVIEWS	62
Report Reviews	64
RESEARCH AND METHODS	66
INDEPENDENT TEST HOUSES	66

Issue No. 2, April - June

Editorial	69
Automated Quality Management Systems in the Electronics Factory of the Future: B. Davis	71
The Rationale of Reliability Prediction: L. N. Harris	77
Research into the Use of Statistical Quality Control in British Manufacturing Industry — Part I: R. F. Followell and J. S. Oakland	85
A Management View of Software Reliability: A. Wingrove	93
Quantitative Effects of Electrical and Vibrational Stresses on Reliability: K. L. Wong	99
Reliability of Plastic-encapsulated Integrated Circuits in Moisture Environments: L. Gallace and M. Rosenfield	105

Electrostatic Discharge: Mechanisms, Protection Techniques and Effects on Integrated Circuit Reliability: L. R. Avery	119
Burn-in Models and TTT-transforms: B. Bergman and B. Klefsjö	125
NEWS ITEMS	131
INTERNATIONAL CALENDAR OF FORTHCOMING EVENTS	134
BOOK REVIEWS	138
INDEPENDENT TEST HOUSES	142

Issue No. 3, July – September

Editorial	143
SHORT COMMUNICATION	
A Message to Quality and Reliability Professionals: D. A. Stuart	145
Reliability in Communications Satellites: V. J. Mancino and W. J. Slusark, Jr	147
Estimation of Weibull Reliability from Few Life Tests: P. Erto and M. Guida	161
A Failure Analysis Methodology for Revealing ESD Damage to Integrated Circuits: R. G. Taylor, J. Woodhouse and P. R. Feasey	165
The Reliability Engineer Looks at Stress Screening: W. Tustin	173
The Use of Models in Reliability: L. N. Harris	181
Reliability Analysis of Fault Tolerance Memory Arrays: J. A. Nachlas	191
Traffic Signal Equipment Procurement Based on Cost of Ownership and Community Cost: H. S. Blanks	195
NEWS ITEMS	209
INTERNATIONAL CALENDAR OF FORTHCOMING EVENTS	210
Courses on Quality and Reliability	212
BOOK REVIEWS	214

Issue No. 4, October – December

Editorial	217
VLSI Yield Management and Prediction: A. V. Ferris-Prabhu	219
Quality Control Information Systems: D. Prior	227
Reliability Analysis Techniques for Mechanical Systems: N. Bernstein	235
Mechanical Reliability, How Do We Advance?: V. Loll	249
How Pulsed Operation Affects Aluminium Bond Wires: G. Fredriksson	257
NEWS ITEMS	263

VOLUME CONTENTS

v

INTERNATIONAL CALENDAR OF FORTHCOMING EVENTS	264
Call for Papers and Advance Information	267
INDEPENDENT TEST HOUSES	267
BOOK REVIEWS	269
Author Index	272
Key Word Index	272